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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,423

01/30/2004

Masaaki Hara

SON-2922

4532

23353

7590

12/27/2005

RADER FISHMAN & GRAUER PLLC  
LION BUILDING  
1233 20TH STREET N.W., SUITE 501  
WASHINGTON, DC 20036

EXAMINER

NGUYEN, DANG T

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AKC

<b>Response to Rule 312 Communication</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/767,423	HARA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dang T. Nguyen	2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☒ The amendment filed on 19 October 2005 under 37 CFR 1.312 has been considered, and has been:


- a) ☐ entered.
- b) ☒ entered as directed to matters of form not affecting the scope of the invention.
- c) ☐ disapproved because the amendment was filed after the payment of the issue fee.  
Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
- d) ☐ disapproved. See explanation below.
- e) ☐ entered in part. See explanation below.

2. Drawings filed on 10/19/05 are approved by the examiner and however Fig. 43B is objected to correct spelling.

3. See attached Examiner's Amendment.

4. IDS filed on 10/19/05 attached as considered

Dang Nguyen 12/23/05

  
12/23/05  
RICHARD ELMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

### **DETAILED ACTION**

1. This office action is in response to applicant's amendment after allowance but before payment of the issue fee filed on 10/19/05.

### ***Drawing Objection***

2. The drawings are objected to because Fig. 43B has wrong spelling. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Fig. 43B objected to because of the following informalities: Fig. 43B, "RESPOMSE" should be - -RESPONSE- -. Appropriate correction is required.

**EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

AMENDMENTS TO THE SPECIFICATION, Page 3, line 2 changes "2002-20388" To - -2002-203388- -

**Contact Information**

4. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

Dang Nguyen 12/23/2005

Approved  
DN  
12/23/05



18/46

# REPLACEMENT

Fig. 18A

COEFFICIENT  $g(k)$   
BEFORE ADDITION

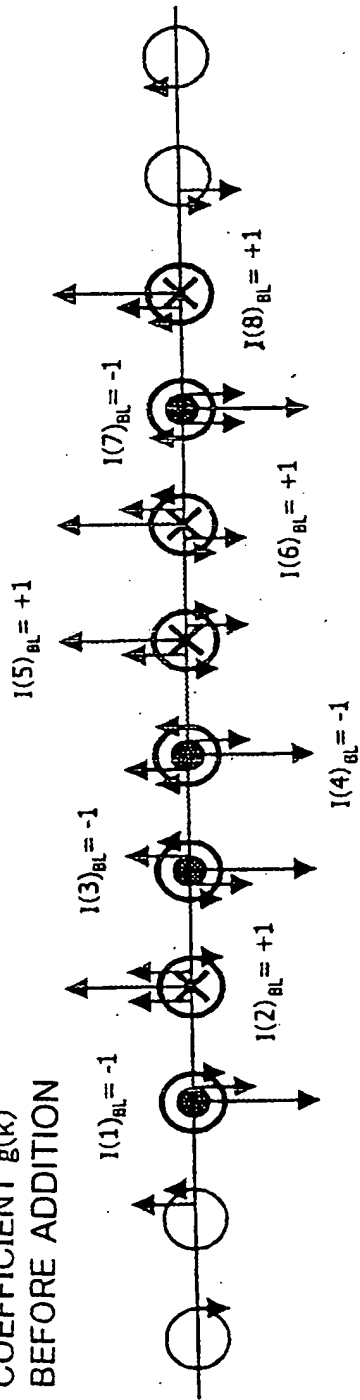
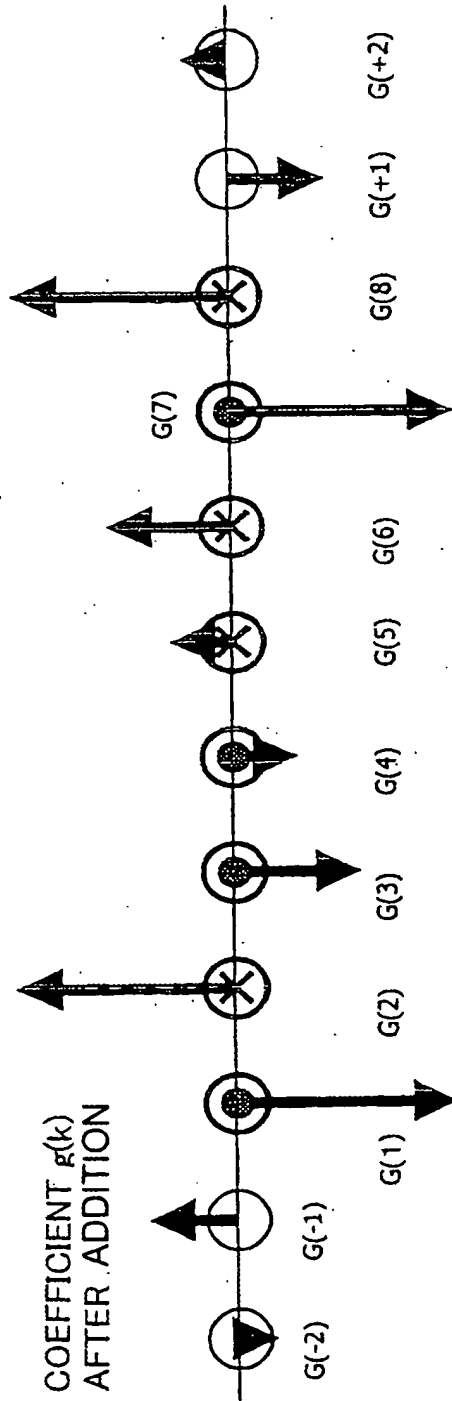


Fig. 18B

COEFFICIENT  $g(k)$   
AFTER ADDITION

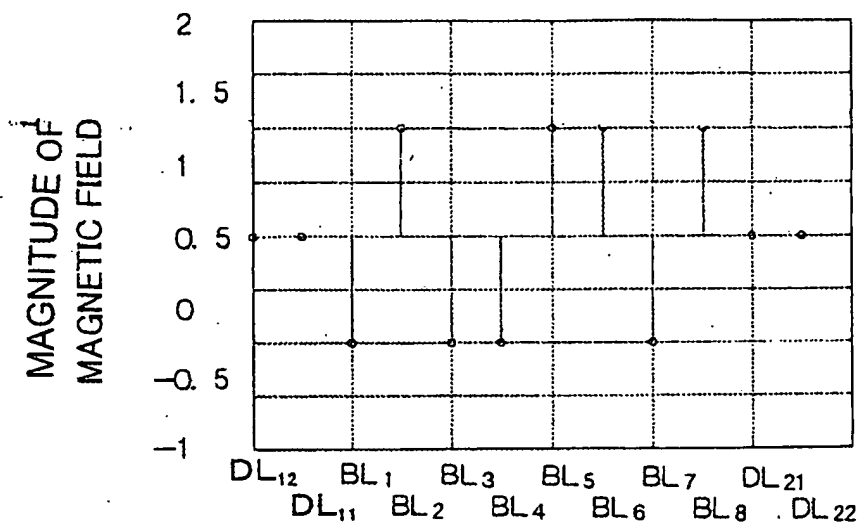




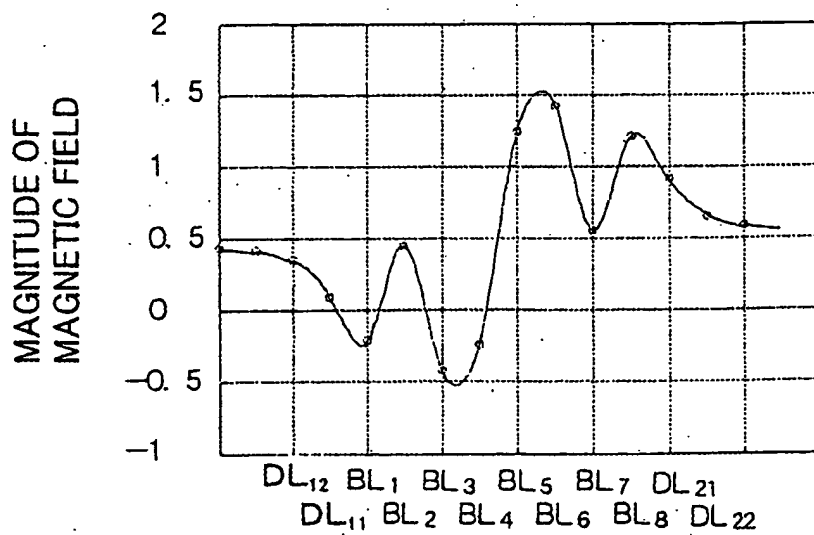
REPLACEMENT

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*Fig. 21A*



*Fig. 21B*



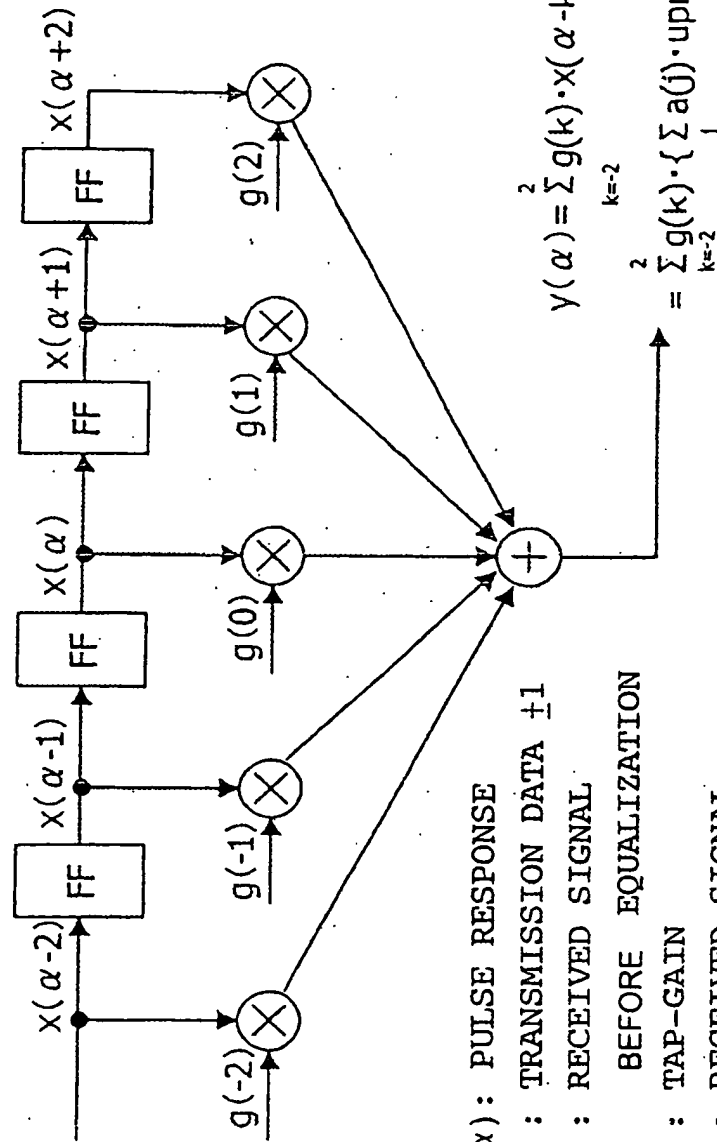


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REPLACEMENT

Fig. 42

$$x(\alpha) = \sum_k a(j) \cdot \text{upr}(\alpha - k)$$



$\text{upr}(\alpha)$  : PULSE RESPONSE

$a(j)$  : TRANSMISSION DATA +1

$x(\alpha)$  : RECEIVED SIGNAL

BEFORE EQUALIZATION

$g(k)$  : TAP-GAIN

$y(\alpha)$  : RECEIVED SIGNAL

AFTER EQUALIZATION

$$y(\alpha) = \sum_{k=-2}^2 g(k) \cdot x(\alpha - k)$$

$$= \sum_{k=-2}^2 g(k) \cdot \left\{ \sum_j a(j) \cdot \text{upr}(\alpha - k - j) \right\}$$





REPLACEMENT

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*Fig. 44*

EQUALIZATION FOR  
APPROXIMATING TO  
NYQUIST'S FIRST CRITERION

